

A NEW RECORD FOR *SINARACHNA ANOMALA* (HYMENOPTERA:
ICHNEUMONIDAE), AN EXTERNAL PARASITOID OF
MALLOS PALLIDUS (ARANEAE: DICTYNIDAE)

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Although ichneumonid parasites may be commonly found on spiders (Eason et al., 1967) only a few have been recorded on dictynids (see Howard, 1892, p. 292 and Bristowe, 1941, p. 347).

On August 8, 1976, 96 *Mallos pallidus* Banks were hand collected at random from *Ceonothus* sp. (Rhammaceae). The collecting site was both sides of a mile stretch of logging road near The Nature Conservancy's McCloud River Preserve in Siskiyou County, California. Sixteen spiders were found to be externally parasitized by *Sinarachna anomala* (Holmgren) (Fig. 1), a widely distributed species (Townes and Townes, 1960) but heretofore unrecorded on *M. pallidus*. The host spider has been recorded from the western United States and northern Mexico by Chamberlin and Gertsch (1958).

Larval attachment of *S. anomala* is not always successfully sustained. Two adult females had attachment scars but no parasite at the usual larval site (the dorsal anterior portion of the abdomen). Additionally, a late larval instar was apparently dislodged from an adult female in the laboratory on September 1, 1976. The spider subsequently laid inviable but normal appearing eggs six days later.

On September 2, 1976, 69 additional *M. pallidus* were collected from an adjacent section of the same logging road. Only three spiders, two adult females and one immature, were found to be parasitized by *S. anomala*. The following is a partial sequence of events for one of three successfully reared parasites: 2 IX 76—The spider with attached parasite was placed in a 2 by 9 cm shell vial and kept in the laboratory at approximately 25°C; 18 IX 76—The parasite, slightly smaller than the size of the host's abdomen, was moving freely on the host's intact abdomen. The spider was making feeble movements within her web; 19 IX 76—The spider was found at the bottom of the vial and with her abdominal contents completely consumed. The parasitoid larvae had moved from the web to the wall of the glass vial; 20 IX 76—1350 hr—The parasitoid began to spin its cocoon against the glass. 2100 hr—The cocoon was complete; 22 IX 76—A whitish yellow pupa was present within a flocculent white cocoon. Meconial pellets were at one end, outside of the cocoon; 25 IX 76—A teneral adult was

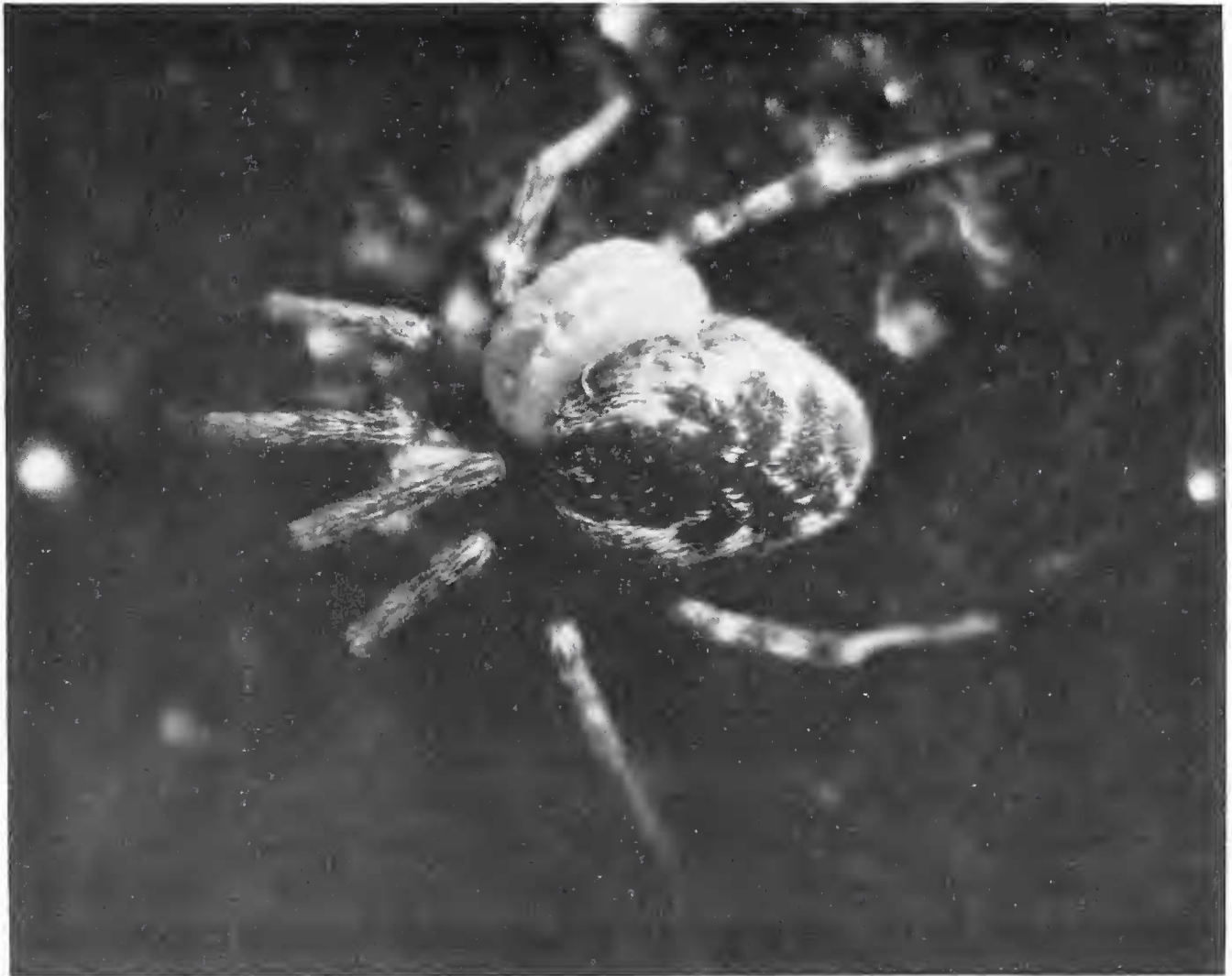


Fig. 1. Larva of *Sinarachna anomala* on *Mallos pallidus*. 10 \times .

within the cocoon; 29 IX 76—The teneral adult had darkened and was vigorously moving within the larval skin; 30 IX 76—The adult was very dark and not moving; XI 76—The adult parasitoid was flying about within the vial.¹

A more detailed biology of other species of ichneumonid spider parasites can be found in the extensive works of Nielson (1923, 1928, 1929, 1935, 1937) for European species, and Cushman (1926) and Clausen (1940) for North American species.

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Footnote

- ¹ The adult and its cocoon are deposited in the U.S.N.M. collection.